Amendments to the Claims:

The following is a listing of all the claims submitted in this application including the present status of each. Any claims canceled in this application are done so without prejudice or disclaimer of any subject matter. All amendments proposed in this paper are included in the following listing:

By the present paper, claim 22 has been canceled and claims 1, 4, 7, 9-13, 17, 20, 23, 32, 34-35 and 37-40 have been amended. New claim 45 has been added.

Listing of Claims.

1(currently amended). An automated method of optimising crystallisation conditions for macromolecules comprising ~~the step of~~ forming a crystallisation trial, the trial comprising a sample comprising:

(a) a gel forming component; and

(b) a macromolecule to be crystallised, wherein at least one component of the trial is dispensed using an automatic liquid dispensing system.

2(previously presented). A method according to claim 1 wherein a layer of oil is present over the sample.

3(previously presented). A method according to claim 2 wherein the sample and oil are dispensed from different tips of the automatic liquid dispensing system.

4(currently amended). A method according to ~~claims~~ either

one of claims 2 or 3 wherein the oil is dispensed first and the sample is dispensed under the oil.

5(previously presented). A method according to any one of claims 1 to 3 wherein a surface onto which the gel-forming component or sample is dispensed is a greased surface.

6(previously presented). A method according to claim 5 wherein the grease is a high-vacuum silicone grease.

7(currently amended). A method according to claim 1 further comprising ~~the steps of~~:

(c) incubating the sample as a drop in the presence of a first reservoir with a composition having a higher solute concentration that that of the sample; and

(d) transferring the drop into the presence of a second reservoir with a composition having a lower solute concentration than the first reservoir by means of an automatic robot.

8(previously presented). The method according to claim 7 wherein the first reservoir composition is covered with a layer of oil.

9(currently amended). A method according to ~~claim~~ either one of claims 2 or 8 wherein the oil layer permits diffusion from the sample.

10(currently amended). The method according to either one of claims 1 or 7 wherein the gel-forming component is or

comprises a material selected from the group consisting of agarose ~~or~~ and tetramethyl ortho silane (TMOS).

11(currently amended). The method of claim 10 wherein the gel-forming component is or comprises tetramethyl ortho silane (TMOS) and is at a final concentration of 0.2%.

12(currently amended). The method of either one of claims 1 or 7 wherein the volume of sample dispensed is less than ~~5:1~~ 5µl.

13(currently amended). The method of claim 12 wherein the volume of sample is between ~~1.5:1 and 2:1~~ 1.5µl and 2µl.

14(previously presented). The method of either one of claims 2 or 8 wherein the oil layer includes paraffin.

15(previously presented). The method of either one of claims 2 or 8 wherein the oil layer is a mixture of oils.

16(previously presented). The method of claim 15 wherein the oil layer comprises silicone.

17(currently amended). The method of ~~either one of claims 2 or 8~~ claim 14 wherein the oil layer consists of paraffin.

18(previously presented).The method of either one of claims 1 or 7 wherein the sample is dispensed into wells of a 1536-well microassay plate.

19(previously presented).A method according to either one of claims 2 or 8 wherein the oil layer over the sample permits vapour diffusion between the sample and the environment due to

the thinness of the layer.

20(currently amended). An automated method of optimizing crystallization conditions for macromolecules comprising ~~the step of~~ using an automated liquid dispensing system capable of dispensing volumes of liquid between ~~0.1:1~~ 0.1µl to ~~5:1~~ 5µl for dispensing a sample of gel-forming component and a macromolecule to be crystallized.

21-22(canceled).

23(currently amended). A method according to claim 20wherein the gel-forming component is 0.2% ~~TMOS~~ tetramethyl ortho silane (TMOS).

24-31(cancelled).

32(currently amended). A method according to claim 20 wherein the automated liquid dispensing system is ~~IMPAX or Oryx 6~~ selected from machines computerized and programmed to dispense varying amounts and concentrations of material.

33(original). A kit of parts comprising an automated liquid dispensing system and a gel-forming component.

34(currently amended). A kit of parts according to claim 33 wherein the gel-forming component ~~is or~~ comprises ~~TMOS~~ tetramethyl ortho silane (TMOS).

35(currently amended). A kit of parts according to ~~claim~~ either one of claims 33 or 34 further comprising a low density oil.

36(previously amended). A kit of parts according to claim 33 comprising low density oil and grease.

37(currently amended). A kit of parts according to claim 36 wherein the grease is a high-vacuum silicon grease.

38(currently amended). A kit of parts according to ~~claim~~ either of claims 36 or 37 wherein the grease is provided on a multi-well plate.

39(currently amended). A kit of parts according to claim 35 wherein the oil is paraffin.

40(currently amended). A method according to either one of ~~claim~~ claims 1 or 7 wherein the macromolecule is a biological macromolecule.

41(previously presented). A method according to claim 40 wherein the biological macromolecule is a polypeptide.

42(previously presented). A method according to either one of claims 1 or 7 including the use of a material selected from the group consisting of one or more oils.

43(previously presented). A method according to claim 42 wherein the oil includes a material selected from the group consisting of silicone, paraffin and grease including high-vacuum silicone grease.

44(previously presented). A method according to claim 43 wherein the grease is provided on a multi-well plate.

45(new). A method according to either one of claims 1 or 7

further comprising using an automated liquid dispensing system capable of dispensing volumes of liquid between ~~0.1:1~~ 0.1µl to ~~5:1~~ 5µl for dispensing a sample of gel-forming component and a macromolecule to be crystallized.